

Revision 2

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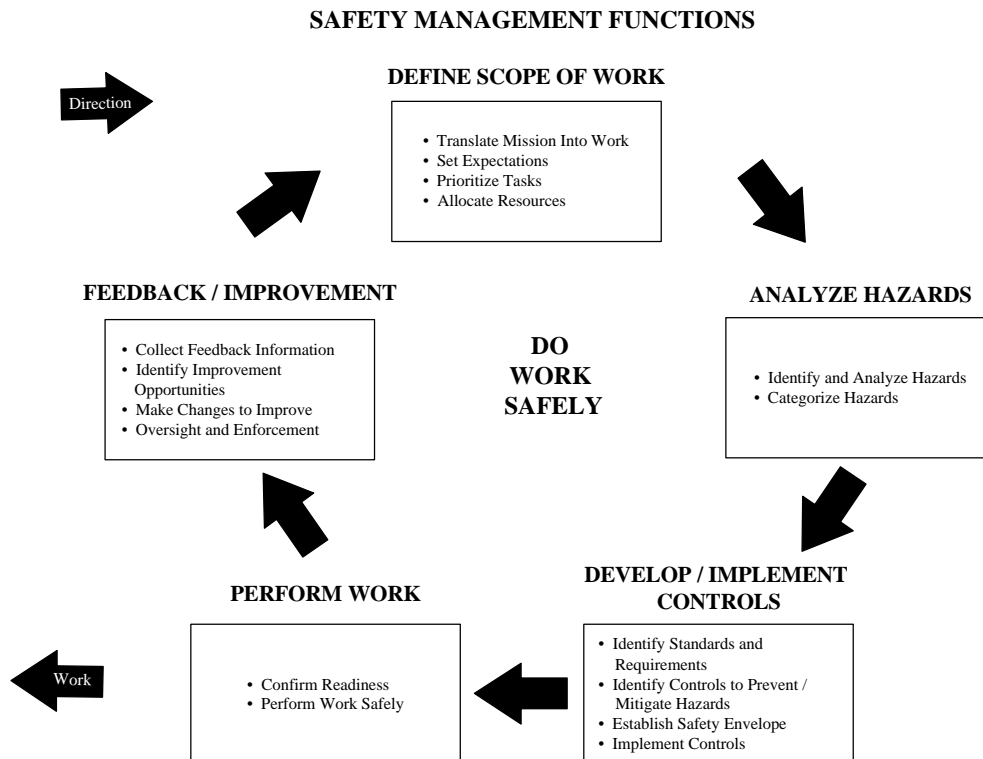
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1.0 INTRODUCTION

At the Rocky Flats Environmental Technology Site, the Department of Energy, Kaiser-Hill, Safe Sites of Colorado and Rocky Mountain Remediation Services, with support from EH Technical Assistance personnel, are conducting a cooperative effort to improve worker safety and productivity in all phases of work planning and execution that includes personnel involvement, ownership, efficiency, and productivity.

2.0 PURPOSE

Enhanced Work Planning is the natural implementing vehicle for the five key elements of the Defense Nuclear Facility Safety Board recommendation 95-2. These key elements -- work scope reviewed and prioritized; work scope analyzed for hazards and categorized based on risk; controls established based on hazards, risk, and experience of workers; work performed safely, efficiently, with appropriate degree of supervision; and continuous improvement and lessons learned -- encompass the essence of an effective, efficient, and safety conscience work process. EWP also serves as a tool to implement the Integrated Safety Management (ISM) process within SSOC. The ISM process explains how safety is integrated into management and work practices at all levels.



3.0 SCOPE

The guidelines of these instructions apply to work activities for SSOC and RMRS facilities, as determined by the Core Teams.

4.0 DEFINITIONS

4.1 **Enhanced Work Planning (EWP):**

EWP is a process that evaluates and improves the program by which work is identified, planned, approved, scheduled, coordinated, controlled, and executed. The key elements of EWP are:

- **Line Management Ownership**
EWP must be sponsored (not imposed upon) by line management. Successful EWP projects are characterized by managers with a positive attitude about safety and work efficiency, who seek the organizational support necessary to implement EWP tenants; and have the leadership skills, knowledge, and authority to use EWP to improve their programs.
- **A Graded Approach to Work Management, Based on Risk and Complexity**
Varying levels of hazards, hazard controls, and work complexity dictate that not every work task requires the same degree of rigor in planning and execution. EWP helps sites develop criteria for determining which tasks can be performed better, faster, safer, and cheaper by relying on the skill-of-craft.
- **Worker Involvement Beginning at the Earliest Phases of Work Management**
"Worker" refers to everyone with a role in accomplishing the work. The unique perspective of line workers injects "reality" into the work management process. Workers' morale improves when their opinions and expertise are demonstrably valued.
- **Organizationally Diverse Teams**
Work management teams consist of the personnel responsible for overall planning and execution of the task. These personnel may include: planners, engineer, workers, safety and health professionals, radiological control specialists, trainers, and line managers.
- **Communication and Lessons Learned**
Considerable time and money can be saved by building on existing, successful programs from other DOE sites. Programs, procedures, software tools, and training courses are freely shared among EWP sites to minimize duplicative efforts and maximize resource utilization.

4.2 **Hazard Analysis**

Any process used to systematically identify, evaluate, control, and document all known and potential workplace safety and health hazards to the workers.

4.3 **Job Hazard Analysis (JHA)**

A type of hazard analysis process which breaks down a job or task into component steps, examines each step to determine what hazard(s) exist or might occur, and establishes actions to eliminate or control the hazard.

5.0 GOALS

The RFETS Enhanced Work Planning program is designed to provide a safer, more efficient work environment by:

- Encouraging worker participation in the initial work planning process to enhance the effectiveness of safety and work efficiency.
- Ensuring hazard analysis and controls are appropriate for the job.
- Improving worker knowledge of safety requirements.
- Fostering teamwork between hourly and salary personnel.
- Improving the technical accuracy and workability of work packages.
- Balancing the degree of work instruction, skill-of-craft, and worksite supervision.
- Reducing the overall time to plan, review, and approve work packages.
- Promoting realistic, resource loaded schedules.
- Enhancing job coordination and improving the efficient execution of the work.
- Continuous improvement through real-time feedback.

Enhanced Work Planning considers the entire work process and continually asks the questions necessary to implement a safer, more efficient work control process. However, in the traditional approach to the work control process, technical specialists, management, and workers are given work packages for review during various phases of the work planning process. When changes are made by one or more of the reviewers, the package must be reviewed again by all parties. This sequential review process is inefficient and tends to create conflict between planners, reviewers, and workers. Enhanced Work Planning is designed to improve the traditional work control process, primarily through extensive communication and feedback from the appropriate mix of personnel responsible for the work.

6.0 ROLES & RESPONSIBILITIES

Advisory Team

The purpose of the Advisory Team is to provide consistent direction and integration of the subcontractors' implementation of their Integrated Safety Management Programs. In addition, the Advisory Team assists in resolving issues and barriers that impede the effective functioning of the Working Teams at RFETS.

The Advisory Team meets periodically to discuss team issues, progress, and to evaluate performance indicators.

The membership of this team consists of:

- K-H ISM Program Representative
- RFFO Representative
- Core Team Member from appropriate subcontractors.
- Craft Involvement
- EH Mentor

Core Team

The purpose of the Core Team is to define the scope of the Working team, to provide guidance to the functioning of the Working Team, and to resolve issues and barriers that impede the effective functioning of the Working Team.

The Core Team meets periodically to discuss team issues, progress, and to evaluate performance indicators. The Team also interfaces with the Advisory Team to assure overall RFETS integration and consistency.

The membership of this team consists of:

- Facility Operations Manager
- ESH&Q Manager
- EWP Program Manager
- EWP Program Subject Matter Experts
- Craft Involvement
- EH Mentor

Working Team

The purpose of the Working Team is to participate in the planning, scheduling, and execution of work tasks, that includes contributing to: hazard analysis and abatement; work instruction development; realistic resource loading for the work; job coordination; effective job execution; and feedback that assures continuous improvement.

The Working Team meets as necessary in the performance of their work assignments.

The membership of the Team consists of, as a minimum: (Other disciplines may be used if needed.)

- The Work Management Facilitator (EWP Program Manager in most cases)
- Team Lead (as assigned by Facility/Project Manager)
- Planning
- Industrial Hygiene and Safety (IH&S)
- Radiological Protection
- Engineering
- Craft personnel
- EH Mentor

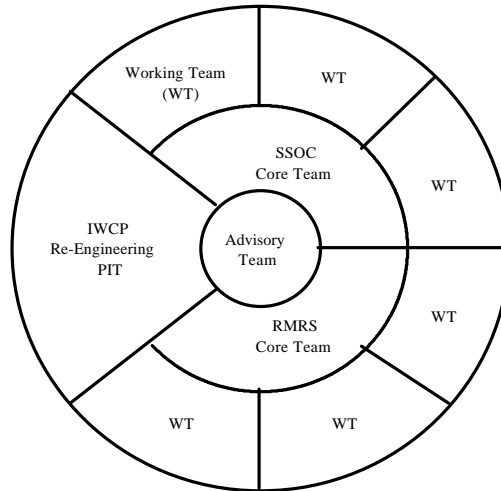
IWCP Re-Engineering Process Improvement Team (PIT)

The purpose of the IWCP PIT is to:

- Re-Engineer the RFETS work control process.
- Develop, evaluate and provide feedback for process improvements to the EWP Pilot Program to ensure consistency throughout plantsite with respect to EWP.

Pilot Program Infrastructure

The following diagram depicts the Pilot Program's Infrastructure. This was put into place to provide the necessary communication and support structure for the success of EWP.



Work Management Facilitator (EWP Program Manager in most cases)

- Facilitate and assist the Team Leader in coordinating team meetings, work planning sessions, and walkdowns.
- Assist the Team Leader in resolving issues that encumber the team from producing and executing safe, efficient work packages.
- Provide guidance in the development, trending, and evaluation of performance indicators.
- Communicate problems, successes and lessons learned between the Working Teams and the Core Team via verbal communication and progress reports.
- Attend team meetings (planning sessions) and walkdowns, as needed.
- Develop, trend, and evaluate performance indicators.

Team Leader

- Assemble a multi-disciplinary team that is appropriate for the work task.
- Discuss the job scope and solicit input from team members relative to: how to perform the job; level of detail needed in work instructions; job hazards & abatements; estimated manpower and time needed to complete the job; potential scheduling and/or operational conflicts; and job coordination.
- Schedule and perform a walkdown of the job with the team members.
- Complete the hardcopy job hazard analysis (JHA) form during the walkdown (Appendix 1).
- Discuss job tasks in detail, determining the level of work instructions and/or skill-of-craft, as appropriate.

- Prepare the draft work instructions that includes the JHA.
- Solicit final review and comments from the team members. Incorporate comments, as appropriate. Communicate the disposition (incorporated, not incorporated and why) of the comments the team members.
- Obtain approvals.
- As a minimum, solicit comments concerning the effectiveness of the work package including: work instruction effectiveness, JHA accuracy, coordination, and actual manpower and time needed to complete the task.
- Use the feedback information to improve pending and future tasks.

Working Team Members

Participate in the joint planning of the work to include:

- Hazard analysis and abatement.
- Development of work instructions.
- Manpower estimates and time.
- Job coordination.
- Work improvements.
- Walkdowns.
- Meetings.

Building Operations

- Coordinates the availability of required resources from support organizations for the JHA walkdown process.
- Supports the Core Team in pre-selecting the job/projects used for the Pilot Program.

EH Technical Assistance

EH Technical assistance will be provided as follows:

- Support in the overall planning, conducting, and reporting of the pilot projects.
- Participate on the Advisory and Core Teams to assist in efficiently performing the overall work processes, developing improvements in safety and productivity, and tracking, trending, and reporting the results.
- Assist in developing performance objectives and indicators to measure progress.

- Facilitate communication and interaction among Team participants, other Rocky Flats organizations, and other DOE sites.
- Assist in communicating Team successes, progress, and lessons learned to Rocky Flats organizations, DOE complex sites, DOE-HQ, Defense Nuclear Safety Board, and other appropriate organizations.
- Provide technical advice, consultation, and support in all areas of the maintenance and work control processes, radiological control, safety and health, industrial hygiene, medical surveillance, and other areas, as requested.
- Import lessons learned from other improvement projects across the DOE complex.
- Be the point of contact for other EH Technical Assistance resources that may be requested, on an as needed basis.

7.0 EWP PROCESS

The following describes the process for the EWP Pilot Program.

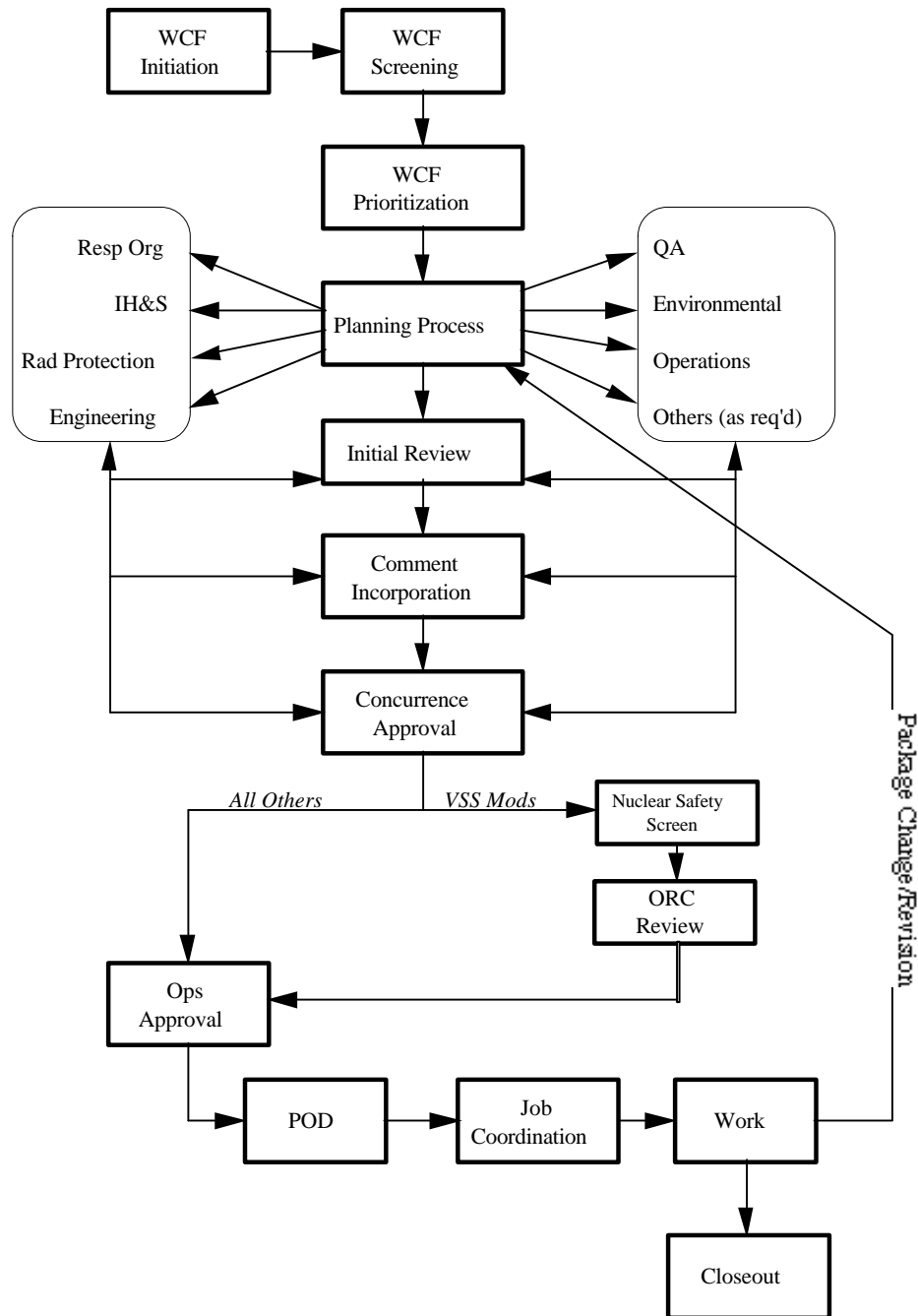
- Identify and establish a Site Advisory Team comprised of K-H ISM Program Manager, RFFO Representative, and Core Team members from appropriate subcontractors.
- Identify and establish Core Teams comprised of Facility Operations Manager, ESH&Q Manager, EWP Program Manager, EWP Program Subject Matter Experts, and craft.
- Identify and establish the Process Improvement Team (PIT) comprised of the correct mix of personnel from K-H, subcontractors, and craft.
- Establish Goals.
- Develop performance indicators, measure progress, analyze results, and recommend improvements based upon results.
- Provide training for the Advisory, Core, and PIT teams.
- Identify pilots for initial demonstration.
- Identify and establish Working Teams comprised of the appropriate mix of technical and craft personnel.

- Provide training to Working Teams.
- Conduct EWP Baseline Employee Feedback Survey (Appendix 4).
- Launch Pilots.
- Perform a post job review on each job (Appendix 4).
- Work with Team personnel and management, providing assistance and coaching throughout the entire work control process and improvement process.
 - 1) Review and refine scheduling accuracy
 - 2) Review and refine job coordination.
 - 3) Assess all post job reviews and recommend improvements to the PIT Team for disposition, as appropriate.
 - 4) Document the lessons learned.
- Advertise the continuum of progress towards enhanced safety and productivity.
- Provide periodic reports describing status of performance indicators and process improvements.

8.0 WORK FLOW PROCESSES

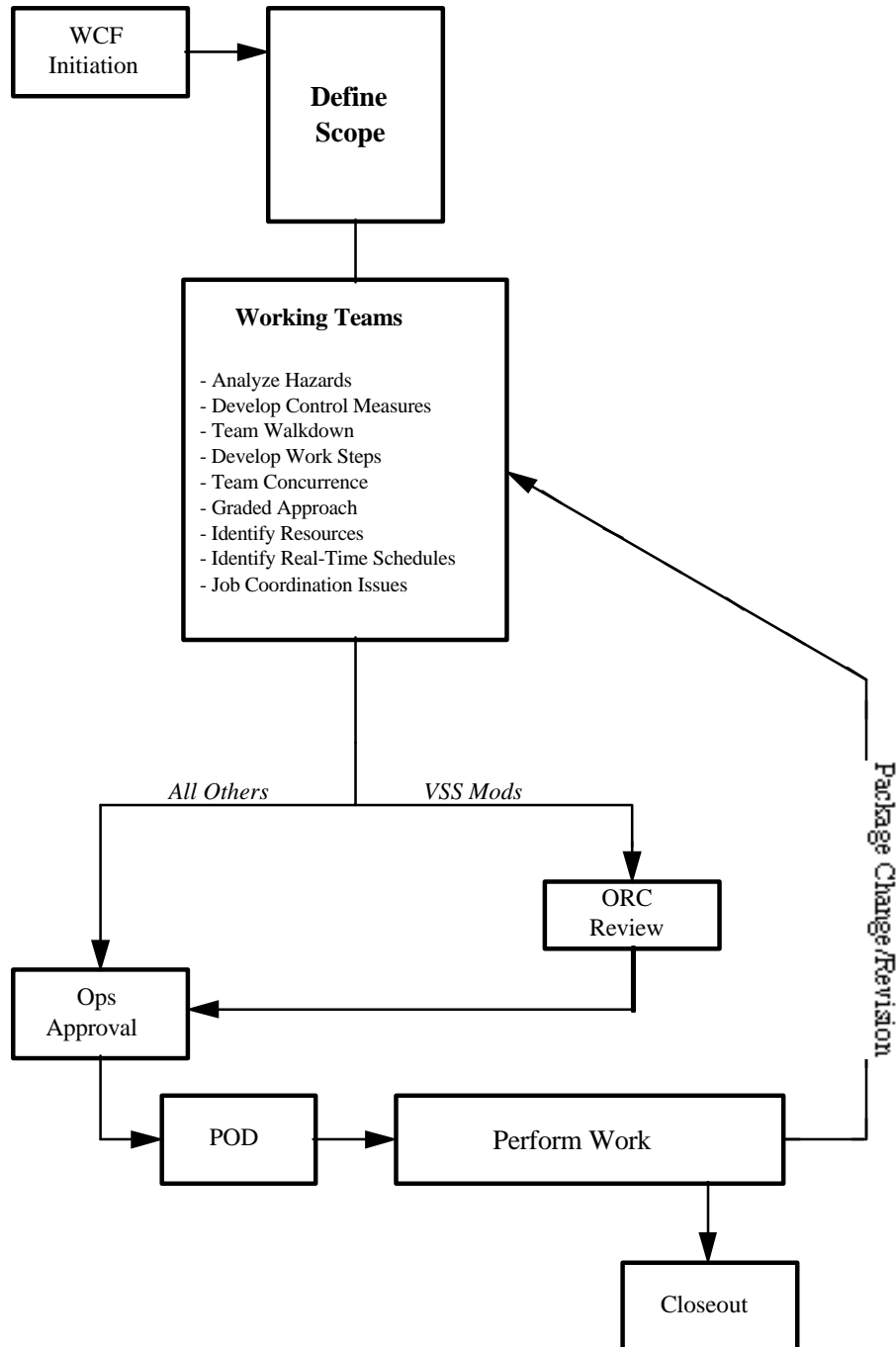
8.1 Existing Work Flow Process with current IWCP

The following diagram depicts the current work flow process at Rocky Flats with the current Integrated Work Control Program (IWCP).



8.2 Work Flow Process using EWP Concepts

The following diagram depicts the work flow process using the concepts of EWP described in this instruction.



9.0 PERFORMANCE INDICATORS

The Performance Indicators will be measured against the established goals by use of:

- EWP Employee Feedback Survey (Appendix 4)
- Data retrieved from facility/project personnel.

10.0 DELIVERABLES & SCHEDULES

- EWP Pilot program Implementation Instruction.
- Periodic reports related to performance indicators and process improvements.

11.0 APPENDICES

Appendix 1 - JHA Checklist

This appendix is the JHA checklist which is to be completed by the Team during the initial walkdown process with the selected team.

Appendix 2 - Pre-Evolution Briefing Record

This appendix is identical to the current Pre-Evolution Briefing Record outlined in COOP-11, with the exception of line item 17 which encompass the additional discussion of the JHA findings. This pre-evolution briefing record shall be used for all work packages evaluated under this Pilot Program.

Appendix 3 - Minor Maintenance JHA Checklist

This appendix is used to determine the hazards associated with minor maintenance activities. It consists of various activity descriptions which falls under the Minor Maintenance category along with their corresponding predetermined JHA. If a Minor Maintenance activity is not outlined in this checklist, then the JHA Checklist in Appendix 1 will need to be completed.

Appendix 4 - EWP Employee Feedback Survey

This appendix is used to obtain feedback as a means of providing performance indicators.